

# Work Order ID 52874



Page 1

October 16, 2009 10:08:21 AM

Item ID: D206-642-541

Accept



Setup Start



Revision ID: M

Stop



Item Name: Replacement Skid tube

Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals:

Process Plan: *BT*Date: *09-10-16*

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

IIN-D206-642

Rev M

100

0.00



DOCUMENT CONTROL

DC

0.00

Document Control

Memo

Photocopy bluefile &amp; type labels per PPP D206-642-541

CHG003

*N/A*

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Item ID: D206-642-541

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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

110

0.00



Skidtubes

Skidtubes

0.00

Memo

1- Bend FWD end of tube using bend prog D3274 FWD dwg D3274, cut fwd end of tube with saw table setup D3274.

DP 9-10-19

2- remove fwd indexing ridge as per dwg D3274. Prepare for welding => SAD 09-10-21

3- weld fwd cap as per dwg D3274 and OSI004

AR Aluminum Rod Batch: M109213/M111999

BE 09-10-21

4- grind fwd cap weld on top surface only

BE 09-10-21

5- Cut AFT end of tube at 170.9" as per dwg D3274 and deburr end.

6-Drill Aft cap pilot hole using DT8025

7 -Cleco DT8025 in position and install pilot hole drill Jig DT8742A,B,C,D.  
Drill 3/16" pilot holes as per Dwg D3274

8 -Remove inner indexing ridge on aft end of skidtube as per Dwg D3274 scribe batch #

9 -Open aft end cap holes to Ø0.208" as per Dwg D3274. Deburr aft end.

H 9-10-22

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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

120

Chemical Conversion Coat per QSI005 4.1

0.00



HandFinish

Memo

0.00

SAD 09-10-22



Hand Finishing

130

QC3- Inspect Part Finish

0.00



QC

Memo

0.00



Quality Control

11 9-10-22

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

=> Ser/10/22



Quality Control

# Work Order ID 52874

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Item ID: D206-642-541  
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Setup Start



Stop



Start Date: 16/10/2009 Start Qty: 1.00  
Required Date: 02/11/2009 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	Skidtubes	0.00							
Skidtubes	Memo	0.00							
Skidtubes	1-Open Ø0.313" and 0.375" crossbolt spacer holes using DT8743 as per Dwg D3274								
	2-Deburr crossbolt spacer holes as per Dwg D3274 and blow out chips from inside the tube								
	3-Bond web in place as per Dwg D3274 & QSI 015. A/R <input type="checkbox"/> Sikaflex-291 <input checked="" type="checkbox"/> M 112391 <input type="checkbox"/> Sikaflex expire date: <input type="checkbox"/> 10-2-30 <input type="checkbox"/> Start: <input type="checkbox"/> 9-10-22 <input type="checkbox"/> Time: <input type="checkbox"/> 3:20 <input type="checkbox"/> Finish: <input type="checkbox"/> 9/10/26 <input type="checkbox"/> Time: <input type="checkbox"/> 8:13 AM (Adhere for 12 hours)								
160	QC5- Inspect part completeness to step on W/O	0.00							
QC	Memo	0.00							
Quality Control									

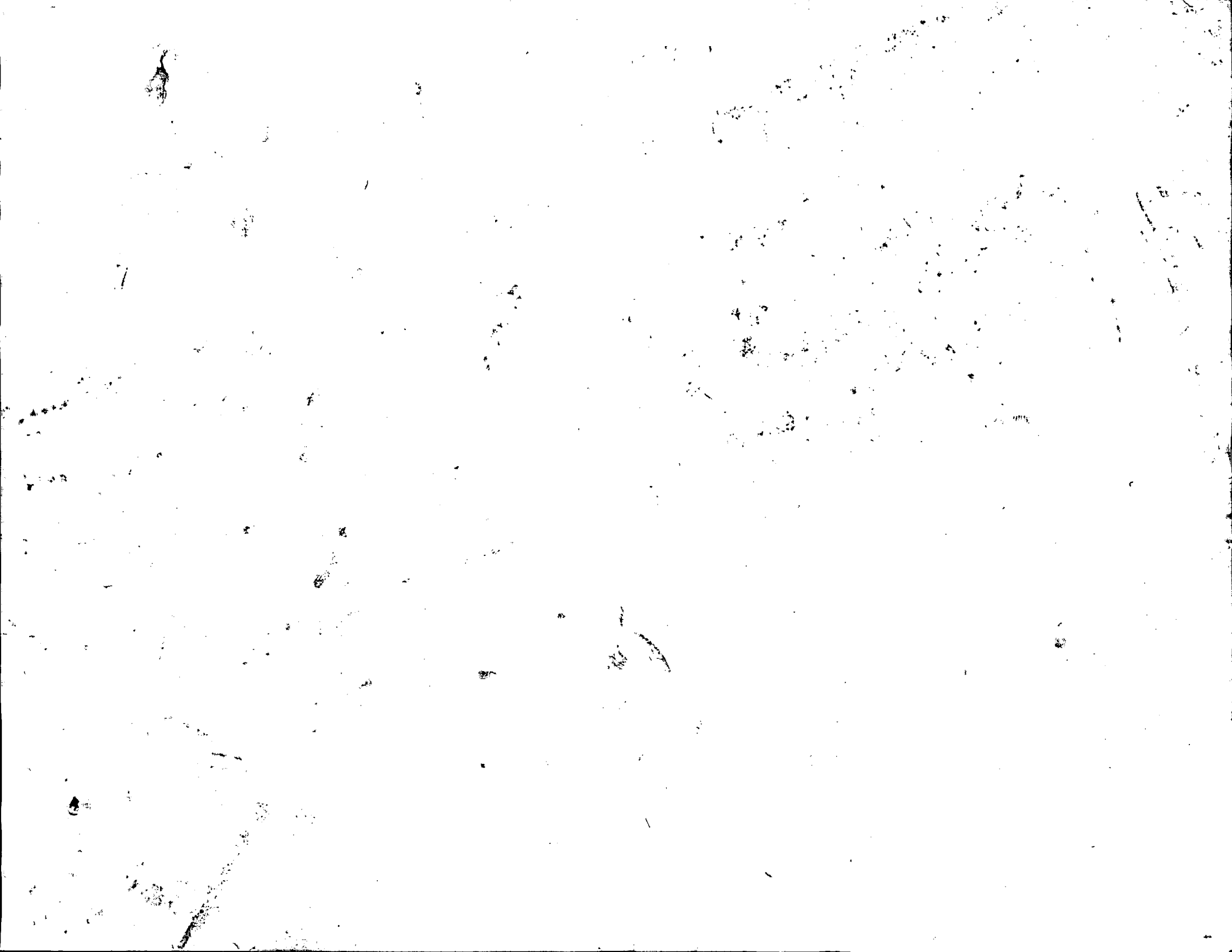
D

M 9-10-22

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Start Date: 16/10/2009 Start Qty: 1.00



Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

170

0.00



Skidtubes

0.00

Skidtubes

Memo

1-Bend AFT end of tube using bend prog. D3274 AFT as per dwg D3274. Install drop pins in crossbolt spacer holes to maintain web position.

2- DRILL PILOT HOLES FOR WEARPLATES USING D3274-IT2  
OPEN HOLES TO .297" . Deburr

3-DRILL TOE PIN HOLE .640" DIA AS PER DWG USING DT8985 FWD  
END OF TUBE  
DEBURR INSIDE OF HOLE AS NECESSARY (DO NOT ENLARGE HOLES)  
REMOVE ANY FOREIGN OBJECTS INSIDE OF TUBES

4- Countersink crossbolt spacer holes as per Dwg D3274

5- prepare for welding

180

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

h= 3.00"  
L= 4.3"

DP 9-10-26

3 DE 09-10-26

③

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Item ID: D206-642-541  
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Setup Start



Stop



Start Date: 16/10/2009 Start Qty: 1.00

Required Date: 02/11/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

190

0.00



Skidtubes

Skidtubes

Memo

0.00

1-Insert D2649 & D3275-1 crossbolt spacers. Weld as per QSI 004 and Dwg D3274. Remember to back drill each hole before welding the other side. Use aluminum rod  
A/R ☐ Aluminum Rod M112507 SE 09/10/20

3-Grind cross bolt welds flush as per Dwg D3274.

4-Counterbore 5/16" x 0.750" deep as per Dwg D3274. Use DT8743 visual aid Jig and deburr.

*AWM 9-10-20*

200

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

*2) 809/1/20*

*(Signature)*

Quality Control

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Setup Start



Stop



Start Date: 16/10/2009 Start Qty: 1.00

Required Date: 02/11/2009 Req'd Qty: 1.00



Cust Item ID:

Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Draw  
Number

Draw  
Rev.

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC10- Inspect visual per QSI004- ground welds

0.00

2> Sorkolts



QC

Memo

0.00

Quality Control



220

Pressure Wash per QSI005 4.3

0.00

MD 09/11/02



HandFinish

Memo

0.00

Hand Finishing



230

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

BR 09-11-2



Powdercoat

Memo

0.00

Powder Coating

START TIME: 2:35  
OVEN TEMPERATURE: 320°  
FINISH TIME: 3:05





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Stop



Start Date: 16/10/2009 Start Qty: 1.00  
Required Date: 02/11/2009 Req'd Qty: 1.00



Cust Item ID:  
Customer:

Reference:

Run Start



Stop



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC3- Inspect Part Finish	0.00	UMD 09/11/09			X1			
	QC	0.00							
Quality Control									
250	HandFinishing	0.00							
	HandFinish	0.00	X1						
Hand Finishing									
	Memo								
	1-Install Nut Plate as per Dwg D3274. Apply LPS-3 to Nut Plate and rivets. A/R <input type="checkbox"/> N/A <input type="checkbox"/> LPS-3 <input type="checkbox"/>								
	2-Install inserts as per Dwg D3274. Use a drop of Sikaflex inside insert holes a A/R <input type="checkbox"/> Sikaflex-291 <input type="checkbox"/> m112391 <input type="checkbox"/> Sikaflex expire date: <input type="checkbox"/> 10/20								
	MD 09/11/09								
260	QC5- Inspect part completeness to step on W/O	0.00							
	QC	0.00	27 Sorluloy						
	QC	0.00	(4)						
Quality Control									
	Memo								
	Inspect Nut Plate & Inserts								

MD 09/11/09

(4)

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Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Draw Number	Draw Rev.	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	----------------	--------------	--------------	---------------	---------------	------------------	----------------

270

0.00



HAND FINISHING RESOURCE #1

HandFinish

Memo

0.00

Hand Finishing

1-Install wearpads & gaskets as per Dwg D3274.

2-Install ring as per Dwg D3274

A/R ☐ Sikaflex-291 ☐ m112391

Sikaflex expire date: ☐ 10/20

3-Inspect for foreign objects as per QSI 024

4-Spray inside of tube on both sides of web with LPS-3

A/R LPS-3 Batch: 1/4

5-Install Aft Cap and seal with Sikaflex. Clean excess adhesive.

A/R ☐ Sikaflex-291 ☐ m112391

Sikaflex expire date: ☐ 10/20

CUM 09/11/04

280

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

2 Sorculos

HL

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W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D206-642-541 PAR #: N/A Fault Category: Finishing NCR: Yes No DQA: 18 Date: 09.11.06  
 Resolution: Scrap Disposition: Scrap QA: N/C Closed: 1 Date: 09.11.18

NCR: 52874		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
9/11/04	#270	Durkin Assembly end cap was Damaged. RL Process / Forces too hard when lining up holes. (forces too hard when lined up with the holes in the skirt)	<u>18</u> <u>09/11/04</u>	Scrap AND Destroy D2646 Qty: 1 Replac. D2646 B246/09	<u>MD</u> <u>09/11/04</u>	<u>S</u> <u>09/11/05</u>	<u>18</u> <u>09/11/02</u>	<u>S</u> <u>09/11/04</u>

NOTE: Date & initial all entries

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Cust Item ID:

Required Date: 02/11/2009 Req'd Qty: 1.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run HoursDraw  
NumberDraw  
Rev.Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

290

Identify as per dwg &amp; Stock Location: \_\_\_\_\_

0.00



Packaging

Memo

PPP  
52880

0.00

Packaging

300

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

MF 09-11-05

# Picklist Print

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Page 1

Work Order ID: 52874

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2600-1-190RevD1		Manufactured	No			110	Each	65.0000	1.0000			



Extrusion Round 3" 206

*Handwritten:* 9-10-19

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

65

47575

65

110

Each

27.0000

1.0000

D3285-1RevA

Manufactured

No



Cap

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

27

47635

27

150

Each

5.0000

1.0000

D3282-041RevC

Manufactured

No



Float Web (206L/407)

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

LG

5

48389

5

*Handwritten:* 1 DE 09-10-21  
D 11 9-10-22

# Picklist Print

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Work Order ID: 52874



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin. Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2649RevB1		Manufactured	No			190	Each	593.0000	12.0000			



Cross Bolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
LG	83	
51529	83	
Main Warehouse		
ST	510	
36013	5	
47112	383	
48271	122	

D3275-1RevA1

Manufactured No

190

Each

28.0000

12.0000



Crossbolt Spacer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	28	
47464	1	
48117	15	
48270	12	

852510 8 BE 09/10/26

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Shop Packet Print

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Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	--------------------------	---------------	----------------	--------

CR3212-4-03

Purchased

No

250

Each

310.0000

2.0000



Cherry Rivet

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

111359

112314

15984

310

96

200

14

250

Each

93.0000

1.0000

D3415-041RevB

Manufactured

No



Nut Plate

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

33842

93

93

250

Each

267.0000

2.0000

CCR264SS3-3

Purchased

No



Cherry Rivet

Warehouse

Loc Qty

Loc Code

Location

Main Warehouse

ST

111548

111827

112314

267

52

115

100

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Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
ALS4-1032-130		Purchased	No			250	Each	5,373.000	78.0000			

Insert

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

5373

110511

5373

D3536-15RevA

Manufactured

No

270

Each

41.0000

1.0000

Gasket

Warehouse  
Location

Loc Qty

Loc Code

Main Warehouse

ST

41

47711

3

48159

12

51600

26

X 78 mmp 09/11/04

X 1 mmp 09/11/04

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Required Date: 02/11/2009

Start Qty: 1.00

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Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-23RevA		Manufactured	No			270	Each	30.0000	1.0000			

Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

12

51609

12

Main Warehouse

ST

18

30754

1

47713

17

D3536-35RevA

Manufactured

No

270

Each

39.0000

1.0000



Gasket

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

39

48160

13

51628

26

XI MD 09/11/04

XI MD 09/11/04

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Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3536-39RevA		Manufactured	No			270	Each	28.0000	1.0000			



Gasket

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	12	
51637	12	
Main Warehouse		
ST	16	
44648	1	
47714	4	
48161	11	

D3535-15RevB

Manufactured No

270

Each

31.0000

1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	18	
51671	18	
Main Warehouse		
ST	13	
30750	4	
42233	1	
48155	8	

XI MD 09/11/09

XI MD 09/11/09

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Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-35RevB		Manufactured	No			270	Each	36.0000	1.0000			

Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	36	
48157	10	
51608	26	

XI MD09/11/04

D3535-39RevB

Manufactured No

270

Each

26.0000

1.0000



Wearshoe

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	13	
51619	13	
Main Warehouse		
ST	13	
48158	13	

XI MD09/11/04

# Picklist Print

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October 16, 2009 10:08:25 AM

Work Order ID: 52874



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3535-23RevB		Manufactured	No			270	Each	24.0000	1.0000			

Wearshoe

Warehouse Loc Qty Loc Code

Location

Main Warehouse

FP

13

51618

13

Main Warehouse

ST

11

48156

11

D3537-3RevC

Manufactured No

270

Each

69.0000

1.0000



Wearpad

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

69

30758

7

33881

17

35697

45

XI MD 09/11/09

XI MD 09/11/09

# Picklist Print

Page 9

October 16, 2009 10:08:25 AM

Work Order ID: 52874

Parent Item: D206-642-541RevM

Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Start Qty: 1.00

Required Qty: 1.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3537-1RevC		Manufactured	No			270	Each	284.0000	9.0000			



Wearpad

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
FP	2	
48288	2	
Main Warehouse		
FP17	265	
51624	103	
51678	162	
Main Warehouse		
ST	17	
51918	17	

X9 mo 09/11/04

AN960C10L

Purchased

No

270

Each

4,396.000 80.0000



washer

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
OFFSHORE		
FG	100	
103585	100	
Main Warehouse		
ST	4296	
112116	993	
112612	3303	

X80 mo 09/11/04

October 16, 2009 10:08:25 AM

Shop Packet Print

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# Picklist Print

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October 16, 2009 10:08:25 AM

Work Order ID: 52874



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube


Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN960C416  washer		Purchased	No			270	Each	704.0000	1.0000			

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

704

100993

704

270

Each

2,056.000 2.0000



✓ MD 09/11/04

D3672-1RevB

Manufactured

No



Phenolic Washer

Warehouse Loc Qty Loc Code

Location

Main Warehouse

ST

1556

39275

19

42329

15

47628

522

52505

1000

Main Warehouse

ST117

500

51674

500

✓ Q MD 09/11/04

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Shop Packet Print

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# Picklist Print

Page 11

October 16, 2009 10:08:26 AM

Work Order ID: 52874



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
AN3C4A 		Purchased	No			270	Each	1,826.000	80.0000			
BOLT												

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	1826	
112314	40	
112720	124	
112724	178	
112794	984	
112829	500	

X80 WO 09/11/09

AN4C5A



BOLT

Purchased

No

270

Each

601.0000

1.0000

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	601	
104936	19	
110552	80	
112243	500	
18918	2	

X1 WO 09/11/09

# Picklist Print

October 16, 2009 10:08:26 AM

Work Order ID: 52874



Parent Item: D206-642-541RevM



Parent Item Name: Replacement Skidtube

Start Date: 16/10/2009

Required Date: 02/11/2009

Comments:

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D2646RevC		Manufactured	No			270	Each	53.0000	1.0000			

Aft Cap

<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	53	
20208	0	
43801	1	
46327	4	
48109	48	

D3413-1RevA

Manufactured No



Ring

270 Each 40.0000 1.0000



<u>Warehouse</u>	<u>Loc Qty</u>	<u>Loc Code</u>
<u>Location</u>		
Main Warehouse		
ST	20	
48123	20	
Main Warehouse		
ST473	20	
51586	20	

*JA* 16/10/09

*DI* 16/11/09



SUOP COPY  
 RETURN TO  
 ENGINEERING  
 UNCONTROLLED COPY  
 SUBJECT TO AMENDMENT  
 WITHOUT NOTICE  
 WORK ORDER  
 NO. 52974



DESIGN <b>CP</b>	DRAWN BY <b>PH</b>	<b>DART AEROSPACE USA, INC.</b> PORT HADLOCK, WA	
CHECKED 	APPROVED 	DRAWING NO. <b>D3274</b>	REV. D SHEET 1 OF 4
DATE <b>06.12.19</b>		TITLE <b>SKIDTUBE ASSEMBLY</b>	SCALE NTS
A	04.03.15	NEW ISSUE	
B	04.08.09	MOVE SADDLE HOLE: 42.14 WAS 42.76	
C	05.03.16	ADD -043; NEW INSERTS	
D	06.12.19	NEW INSERTS, SS WEARSHOE + GASKET	

RELEASED  
 07.02.12   
 DEO ATTACHED

Qty -041	Qty -043	Part Number	Description
X		D3274-041	SKIDTUBE ASSEMBLY
	X	D3274-043	SKIDTUBE ASSEMBLY
1	1	D2600-1-240	EXTRUSION
1	1	D2646	AFT CAP
12	12	D2649	CROSS BOLT SPACER
12	37	D3275-1	CROSS BOLT SPACER
1	1	D3282-041	FLOAT WEB
1	1	D3285-1	CAP
1	1	D3413-1	RING
1	1	D3415-041	NUT PLATE
1	1	D3535-15	WEARSHOE
1	1	D3535-23	WEARSHOE
1	1	D3535-35	WEARSHOE
1	1	D3535-39	WEARSHOE
1	1	D3536-15	GASKET
1	1	D3536-23	GASKET
1	1	D3536-35	GASKET
1	1	D3536-39	GASKET
9	9	D3537-1	WEARPAD
1	1	D3537-3	WEARPAD
78	78	ALS7-1032-130	INSERT (or AKS4-1032-130, ALS4-1032-130, AELS-1032-130)
80	80	AN3C4A	BOLT
1	1	AN4C5A	BOLT
1	1	AN960C416	WASHER
80	80	AN960C10L	WASHER
2	2	CCR264SS3-3	RIVET
2	2	CR3212-4-03	RIVET
2	2	NAS1515H3L	WASHER

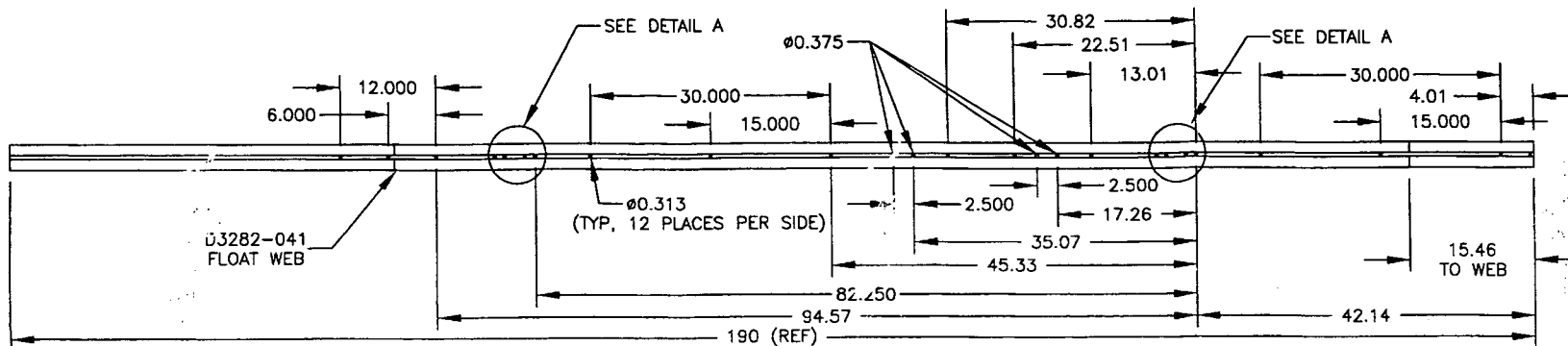
#### GENERAL NOTES:

- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- DAMAGE TOLERANCE ON FWD BEND:  
THERE SHOULD BE NO VISIBLE WRINKLES IN THE BEND FROM THE GROUND TO A HEIGHT OF 7 INCHES ABOVE THE GROUND. IT IS ACCEPTABLE TO POLISH OUT GOUGES UP TO 0.020 DEEP IN THE BENT PORTION OF THE TUBE. A MAXIMUM REDUCTION IN DIAMETER OF 0.150" IS ACCEPTABLE IN THE BENT PORTION OF THE TUBE.
- ALL HOLES DRILLED ON CENTERLINES.
- BOND D3282-041 FLOAT WEB INTO D3274-1/-3 OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/291 ADHESIVE PER DART QSI 015. ENSURE HOLES LINE-UP.
- WELDING TO BE DONE PER DART QSI 004.
- FINISH: ACID ETCH, ALODINE ASSEMBLY PER DART QSI 005 4.1  
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
- DRILL Ø0.297 HOLES FOR ALS7-1032-130 INSERTS USING DT3274-1T2 BEFORE FINISH. INSTALL ALS7-1032-130 INSERTS AFTER FINISH. SEAL WEARSHOE BOLTS WITH SIKAFLEX -241/-291.
- SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND INSTALLATION OF INSERTS. COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF POWDER COATING WITH MEK DEGREASER.

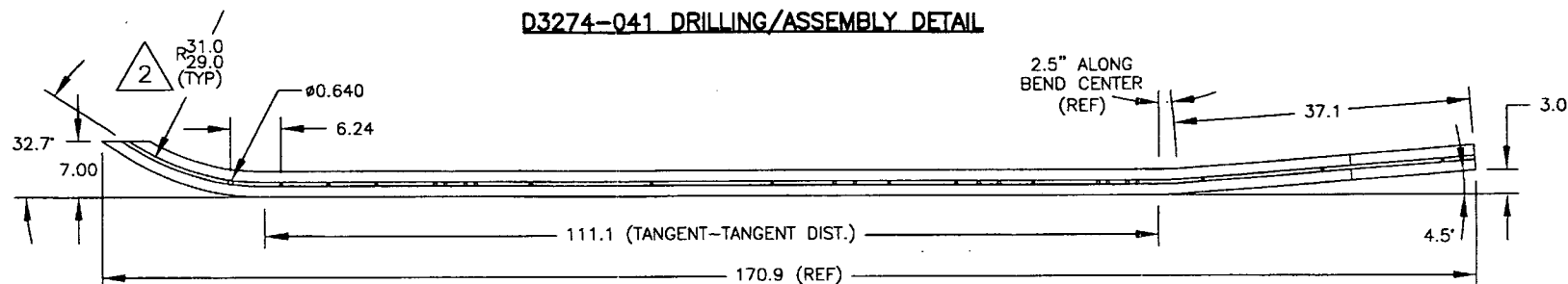
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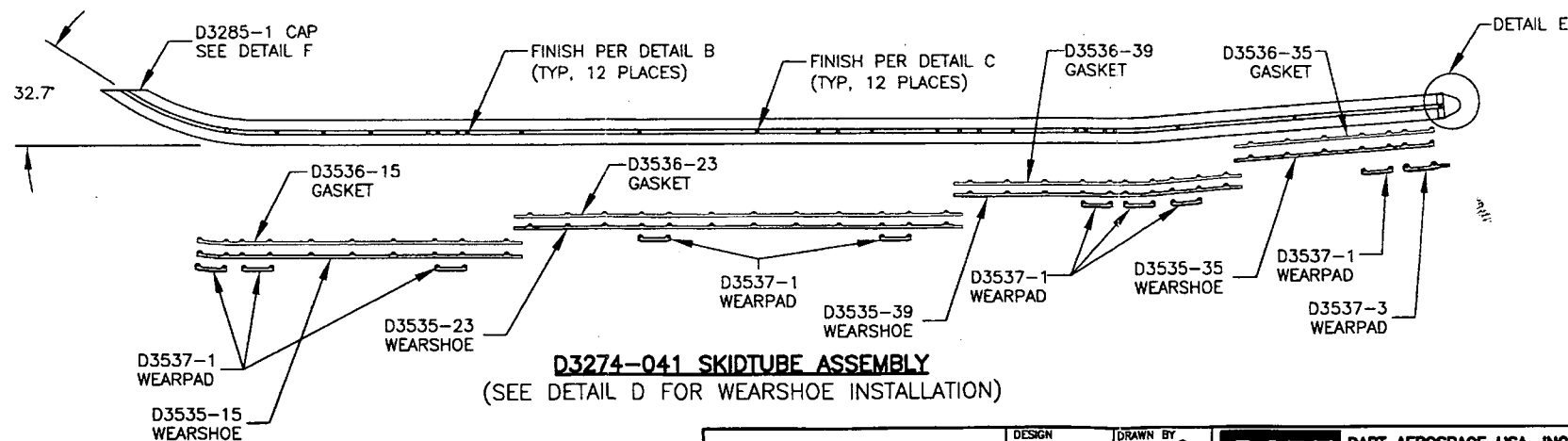
DEO ATTACHED



**D3274-041 DRILLING/ASSEMBLY DETAIL**



**D3274-041 BEND/DRILLING DETAIL**



**D3274-041 SKIDTUBE ASSEMBLY**

(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

4

W/O 52874

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PH

CHECKED

4

APPROVED

4

DATE

06.12.19

**DART** DART AEROSPACE USA, INC.  
PORT HADLOCK, OH

DRAWING NO.

D3274

REV. D

SHEET 2 OF 4

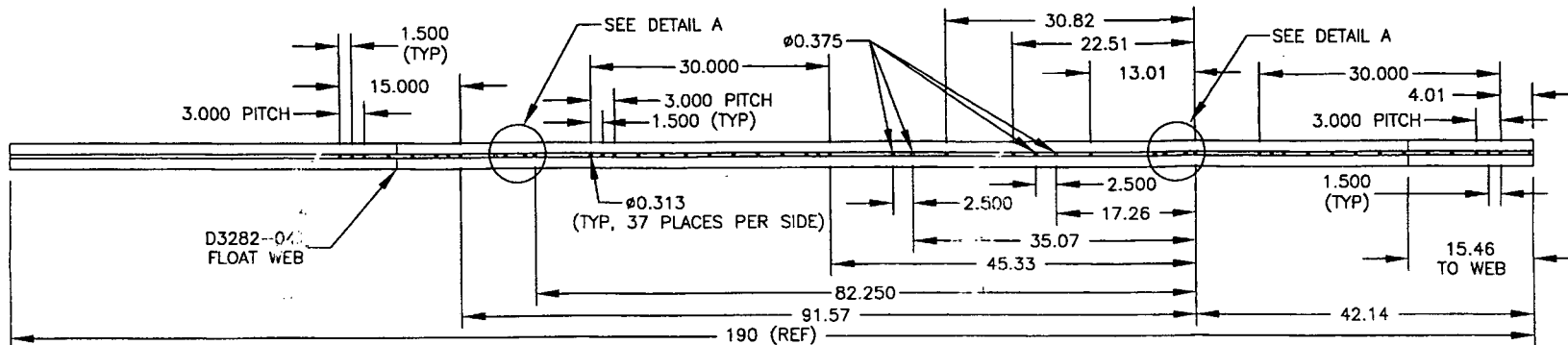
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SKIDTUBE ASSEMBLY

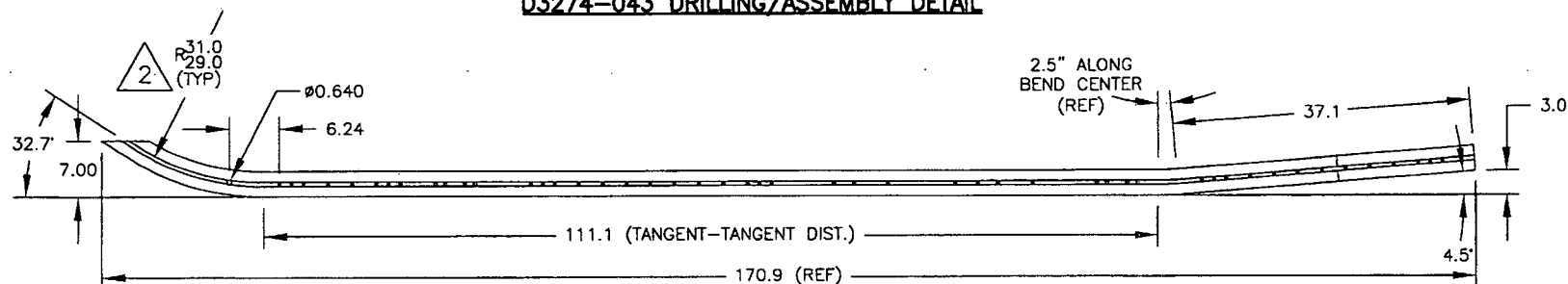
SCALE

1:15

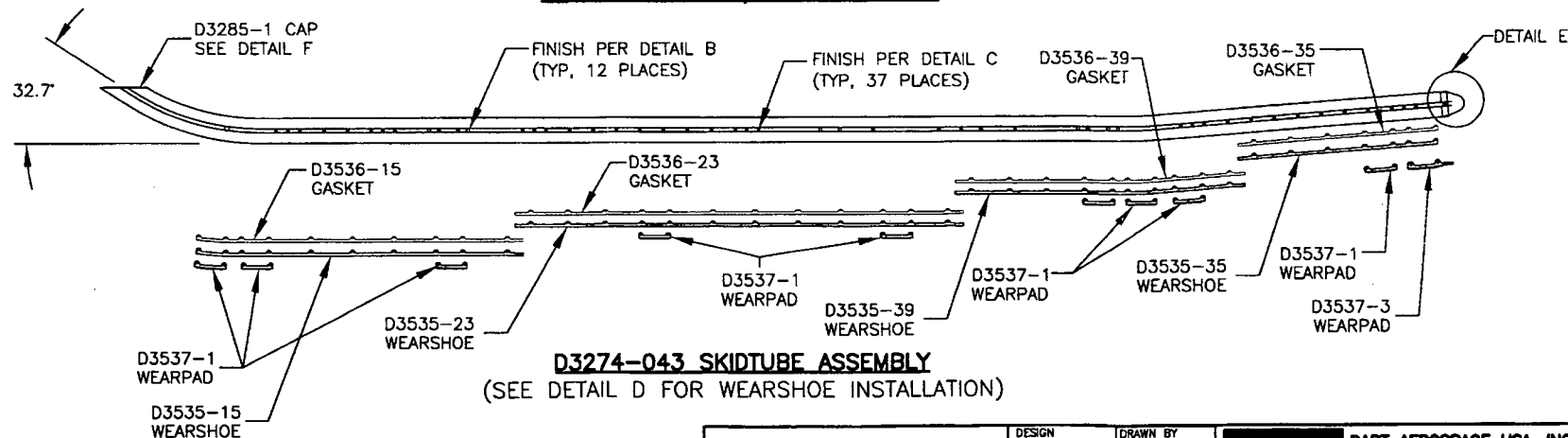
DEO ATTACHED



**D3274-043 DRILLING/ASSEMBLY DETAIL**



**D3274-043 BEND/DRILLING DETAIL**



**D3274-043 SKIDTUBE ASSEMBLY**

(SEE DETAIL D FOR WEARSHOE INSTALLATION)

RELEASED

07.02.12

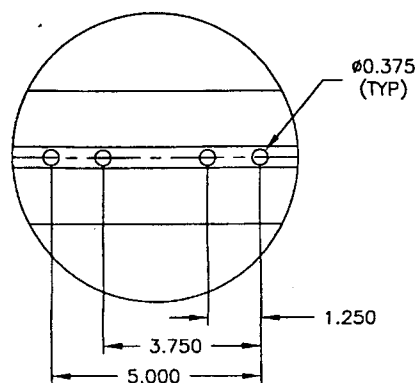
W/O 52874

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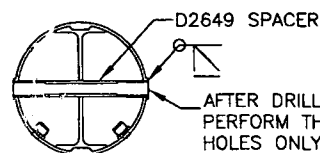
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CHECKED	#	APPROVED	#	DRAWING NO. D3274
DATE	06.12.19	TITLE	SKIDTUBE ASSEMBLY	REV. D SHEET 3 OF 4 SCALE 1:15

# **DETAIL A: DRILL DETAIL**

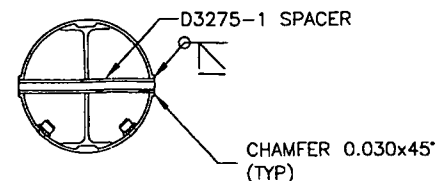


# **DETAIL B** FOR 0.375 HOLES ONLY

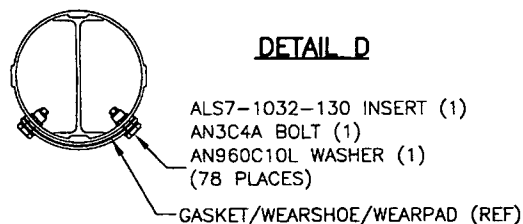


- AFTER DRILLING AND BENDING ASSEMBLY  
PERFORM THE FOLLOWING FOR 0.375  
HOLES ONLY:
1. CHAMFER HOLE 0.030x45°
  2. INSERT D2649 SPACER
  3. WELD INTO PLACE AND GRIND FLUSH
  4. C'BORE TO 0.313x0.75 DEEP

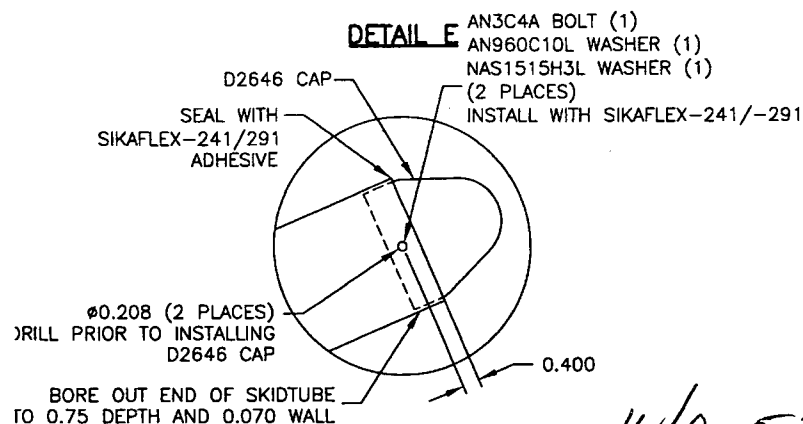
# **DETAIL C** FOR 0.313 HOLES ONLY



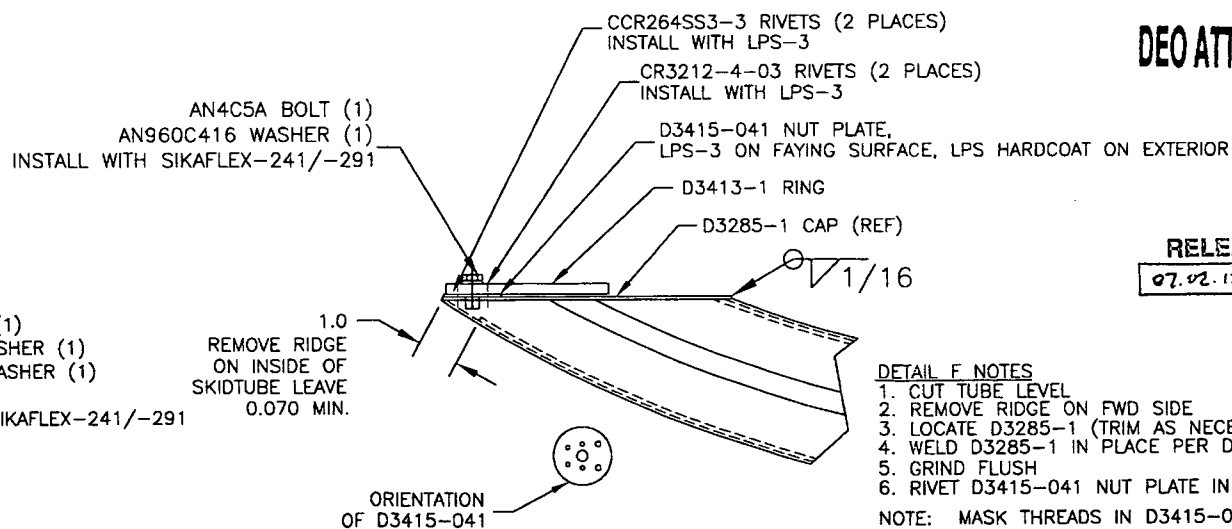
# **DETAIL D**



# **DETAIL E**



# **DETAIL F: END FINISHING DETAIL**



**DEO ATTACHED**

**RELEASED**

07.02.12

# **DETAIL F NOTES**

1. CUT TUBE LEVEL
  2. REMOVE RIDGE ON FWD SIDE
  3. LOCATE D3285-1 (TRIM AS NECESSARY)
  4. WELD D3285-1 IN PLACE PER DART QSI 004
  5. GRIND FLUSH
  6. RIVET D3415-041 NUT PLATE IN PLACE
- NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

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DATE

06.12.19

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PORT HADLOCK, WA

DRAWING NO.

D3274

TITLE

SKIDTUBE ASSEMBLY

REV. D

SHEET 4 OF 4

SCALE

1:3

W/O 52874

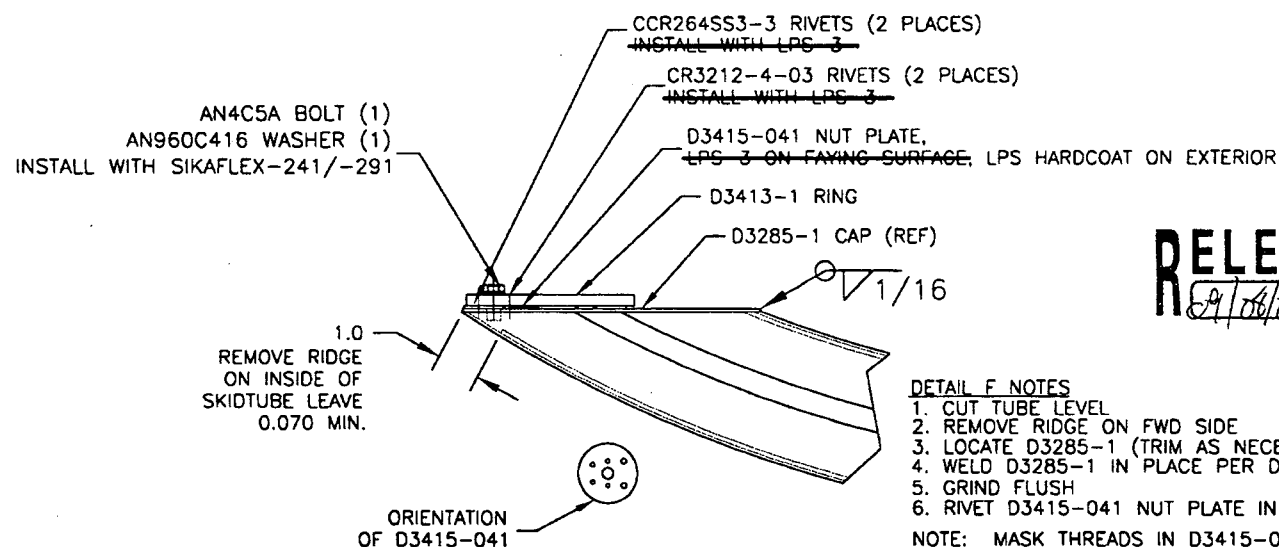
DRAWING NO. D3274	TITLE SKIDTUBE ASSEMBLY	REV. D	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3274-D-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>CP</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 09.06.17	DATE 09.06.23	DATE 09/06/23	DATE 09/06/23		DATE 09.06.23		

LPS-3 IS NO LONGER USED DURING ASSEMBLY OF SKIDTUBE.

AMEND NOTE 8: ~~"SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES 'LPS-3' AFTER FINISH AND INSTALLATION OF INSERTS.~~  
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES 'LPS PROCYON' AFTER FINAL ASSEMBLY, CLEAN EXCESS OFF  
POWDER COATING WITH MEK DEGREASER."

AMEND DETAIL F AS SHOWN:

### DETAIL F: END FINISHING DETAIL



### DETAIL F NOTES

1. CUT TUBE LEVEL
2. REMOVE RIDGE ON FWD SIDE
3. LOCATE D3285-1 (TRIM AS NECESSARY)
4. WELD D3285-1 IN PLACE PER DART QSI 004
5. GRIND FLUSH
6. RIVET D3415-041 NUT PLATE IN PLACE

NOTE: MASK THREADS IN D3415-041  
PRIOR TO FINISH

**RELEASED**  
09/06/23

*W1052874*



NO. 214

AWS D17.1.2001  
QUALIFICATION TEST RECORD

Name: Barclay Elliott  
Job number: 52855  
Part number: D206-642-251  
Description: 206 skid tube  
Welding Process: Tig[☒] Mig[ ]  
Base material: Aluminium  
Current: AC[☒] DC[ ]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[ ]  
Penetration: pass[☒] fail[ ]

UNACCEPTABLE

Cracks: pass[☒] fail[ ]  
Undercut: pass[☒] fail[ ]  
Pin holes: pass[☒] fail[ ]  
Overlap (cold lap): pass[☒] fail[ ]  
Porosity (surface): pass[☒] fail[ ]  
Coloration: pass[☒] fail[ ]

Qualifier Pat Dunc Date of Test Coupon 09.10.29  
Welder Barclay Elliott Date of Test Coupon 09.10.29

The above named individual is qualified in accordance with AWS D17.1.2001 to weld